CONTENTS, Volume 31, 1987

Research Papers

Origin of the lethal gas burst from Lake Monoun, Cameroun
H. Sigurdsson and J.D. Devine (Kingston, RI, U.S.A.), F.M. Tchoua (Yaounde, Cameroun), T.S. Presser, M.K.W. Pringle and W.C. Evans (Menlo Park, CA, U.S.A.) 1

Mechanism of energy transfer in the lava lake of Niragongo (Zaire), 1959–1977
F. Le Guern (Gif-sur-Yvette, France) 17

Geochemistry and petrogenesis of rift-related volcanic rocks from South Kivu (Zaire)
A. Auchapt and C. Dupuy (Montpellier, France), J. Dostal (Halifax, N.S., Canada) and M. Kanika (Lubumbashi, Zaire) 33

Isotope geochemistry of minerals and fluids from Newberry Volcano, Oregon
W.C. Carothers, R.H. Mariner and T.E.C. Keith (Menlo Park, CA, U.S.A.) 47

The May 1915 eruptions of Lassen Peak, II: May 22 volcanic blast effects, sedimentology and stratigraphy of deposits, and characteristics of the blast cloud
D.B. Eppler (Tempe, AZ, U.S.A.) 65

Massive and brecciated dikes in the McDougall and Despina faults, Noranda, Quebec, Canada
T. Setterfield (London, Ont., Canada) 87

Eruptive history of the Colima volcanic complex (Mexico)
C. Robin, P. Mossand, G. Camus, J.-M. Cantagrel, A. Gourgaud and P.M. Vincent (Clermont-Ferrand, France) 99

A gigantic Bezymianny-type event at the beginning of modern volcan Popocatepetl
C. Robin and C. Boudal (Clermont-Ferrand, France) 115

Myvatn lake level observations 1984–1986 and ground deformation during a Krafla eruption
E. Tryggvason (Reykjavik, Iceland) 131

Experiments on cauldron formation: a polygonal cauldron and ring fractures
H. Komuro (Matsue, Japan) 139

An experimental investigation of the quartz, Na-K, Na-K-Ca geothermometers and the effects of fluid composition
L.A. Pope, A. Hajash and R.K. Popp (College Station, TX, U.S.A.) 151

Discussion

Comments on "The petrology of Tambora volcano, Indonesia: a model for the 1815 eruption" by J. Foden
S. Self and J.A. Wolff (Arlington, TX, U.S.A.) 163

Reply to the comments by S. Self and J.A. Wolff on "The petrology of Tambora volcano, Indonesia: a model for the 1815 eruption"
J. Foden (Adelaide, S.A., Australia) 167

Letter Section

Kahoolawe Island, Hawaii: tholeiitic, alkalic, and unusual hydrothermal (?) "enrichment" characteristics
R.V. Fodor (Raleigh, NC, U.S.A.), G.R. Bauer (Honolulu, HI, U.S.A.), R.S. Jacobs (Raleigh, NC, U.S.A.) and T.J. Bornhorst (Houghton, MI, U.S.A.) 171

Research Papers

Geothermal profile and crust–mantle transition beneath east-central Queensland: volcanology, xenolith petrology and seismic data
W.L. Griffin (Oslo, Norway), F.L. Sutherland and J.D. Hollis (Sydney, N.S.W., Australia) 177

Water level records used to evaluate deformation within the Yellowstone caldera, Yellowstone National Park
W.L. Hamilton (Yellowstone N.P., WY, U.S.A. and Bozeman, MO, U.S.A.) 205

The thermal regime of the San Juan Basin since Late Cretaceous times and its relationship to San Juan Mountains thermal sources
G. Clarkson and M. Reiter (Socorro, NM, U.S.A.) 217

Eruption characteristics and cycles at Pavlof Volcano, Alaska, and their relation to regional earthquake activity
S.R. McNutt (Palisades, NY, U.S.A.) 239

Geothermal exploration using surface mercury geochemistry
G.K. van Kooten (Anchorage, AK, U.S.A.) 269

Kaipohan: an apparently nonthermal manifestation of hydrothermal systems in the Philippines
I. Bogie and J.V. Lawless (Auckland, New Zealand), and J.B. Pornuevo (Manila, Philippines) 281

Microearthquakes at the Puhagan geothermal field, Philippines — a case of induced seismicity
C.J. Bromley and C.F. Pearson (Auckland, New Zealand), D.M. Rigor and PNOC-EDC (Manila, Philippines) 293

Automatic reconstruction of surge deposit thicknesses. Applications to some Italian volcanoes
P. Armienti and M.T. Pareschi (Pisa, Italy) 313
Chemical composition of thermal springs, cold springs, streams, and gas vents in the Mt. Amiata geothermal region (Tuscany, Italy)
V. Duchi, A.A. Minissale and F. Prati (Florence, Italy) 321
A gravity and magnetic study of the volcanic island of Ischia, Naples (Italy)
C. Nunziata and A. Rapolla (Naples, Italy) 333
Jabal an Nar: an Upper Miocene volcanic centre near Al Mukha (Yemen Arabic Republic)
G. Capaldi (Naples, Italy), S. Chiesa (Milano, Italy), S. Conticelli and P. Manetti (Florence, Italy) 345

Book Review
Discovering Mount St. Helens: A Guide to the National volcanic Monument, by S. Shane - R.B. Moore 353